

**PROJECT HOPE**

**Improving the Health of Guatemala's Most Vulnerable  
Population – Migrant Women and their Children in the  
Boca Costa of Guatemala**

**CS-XIII Cooperative Agreement No. FAO-A-00-97-00030-00**

---

**FINAL KPC SURVEY REPORT**

**Project Location:**

**Boca Costa of San Marcos, Quetzaltenango, and Solola, Guatemala**

**Submitted to:**

**U.S. Agency for International Development**

**BHR/PVC**

**Washington, DC 20523**

**Submitted by:**

**Project HOPE –**

**The People-to-People Health Foundation, Inc.**

**Millwood, Virginia 22646**

**Tel: (540) 837-2100**

**Fax: (540) 837-1813**

**January 31, 2002**

**Contact person:**

**Bettina Schwethelm, PhD, MPH**

**Field Contact Person:**

**Victor Calderon, MD**

## TABLE OF CONTENTS

	<i>Page</i>
EXECUTIVE SUMMARY.....	3
I. INTRODUCTION.....	3
A. Background	
B. Objectives of the Survey	
C. Location/Population	
D. Schedule of Activities	
II. METHODOLOGY.....	5
A. Questionnaire	
B. Determination of the Sample Size	
C. Selection of Clusters	
D. Selection of Sample	
E. Procedures to Collect Clinical Information	
F. Training of Supervisors and Interviewers	
G. Interviewers	
H. Data Handling and Processing	
III. RESULTS	
1. Child health, intervened area.....	8
a. Breastfeeding and Weaning Practices	
b. Nutrition status	
c. Diarrhea Case Management	
d. Immunizations	
e. Acute Respiratory Infections	
2. Maternal health.....	12
a. Place of birth	
b. Prenatal care	
c. Tetanus immunization	
3. Women of fertile age.....	13
 <b>APPENDICES</b>	
Project performance indicators.....	14
Rapid CATCH list.....	15
Frequency tables.....	16
Appendix G: Sample Survey tool.....	35

## **EXECUTIVE SUMMARY**

From August 30 to September 12 2001, Project HOPE, with the participation of the Ministry of Health, IGSS, implemented the final KPC survey of the Child Survival (CS) project funded by US. Agency for International Development, Bureau of Humanitarian Response, Office of Private Voluntary Cooperation (USAID/BHR/PVC) and Project HOPE. The survey was implemented in 600 clusters in the Boca Costa. Within these 600 clusters were 73 communities.

The purpose of this survey was to; 1) assess which goals set by the Detailed Implementation Plan (DIP) had been reached and which ones were still in progress, 2) compare the final results to baseline to locate where the most progress has taken place, and 3) to gather baseline data on the prevalence, knowledge, and practices regarding reproductive health. This last objective is very important due to this project being extended for 4 more years covering the same interventions.

This project was implemented by Project HOPE field staff, MOH and with technical support from Project HOPE's headquarters in Millwood, Virginia. One representative from HOPE's headquarters also participated and helped the National Director supervise the implementation of the final KPC survey in the field.

Project staff used relatively the same survey instrument (for this survey sections on ARI and malaria were included) and cluster sample methodology that was used in the baseline and midterm surveys. The general survey instrument was developed by the former Child Survival Support program (CSSP) of John Hopkins University. Wording and the names of foods were revised to be culturally appropriate. The

local staff provided all training. Ten or eleven interviews (depending on cluster size) of mothers with children under the age of two years were conducted in each of the 73 clusters.

Between baseline and final KPC there were significant progress in immunization coverage, proportion of children with a health card, early breastfeeding and complementary feeding, vitamin A supplementation coverage, ORT use rate, home fluids use rate during diarrhea, maternal knowledge of pneumonia danger signs, knowledge and use of child spacing methods, proportion of mothers with maternal cards, and institutional birth.

## **I. INTRODUCTION**

### **A. Background**

Project HOPE started this child survival project in Guatemala in 1997 as a collaborative effort between Project HOPE; The Guatemalan Ministry of Health; the Guatemalan Social Security Institute (IGSS); a coalition of coffee growers, Anacafe; local NGOs and independent coffee producers and community volunteers.

The project is located in the Boca Costa of Guatemala, a narrow strip between the highlands and the coast. This area is the largest national coffee production region for export coffee in Guatemala.

In Guatemala, coffee growers require a large number of seasonal workers during the harvest season. Residents live in towns close to the plantations. Some live on the plantations the year round. In the past, resident workers felt entitled to receive all services from the plantation: housing, food, education, and in some cases health services. Most migrant worker are indigenous

families from highland communities that come to Boca Costa during the harvest season, because they lack job opportunities in their home communities. In some cases migrants have obtained loans from plantation administrators that have to be paid off. Migrants need to come and pay their loans regardless if they find attractive or not the compensation. In 2001, the rates were 15-22 Quetzales (about \$2) /110 pound of coffee beans, a task that requires a day of work of the entire family.

The project strengthens the capacity of the partner agencies to provide quality health services to mothers and children.

The baseline survey was performed in two separate strata: residents and migrants. No midterm survey was conducted, only a qualitative, participatory evaluation. Since migrants are a floating population, there is no practical way to ensure that those surveyed in the final KPC survey could have benefited from the interventions.

The final KPC was designed to improving the evaluation design and including relevant new variables, restricting data collection to residents.

The final KPC also includes a group, drawn from 5 municipalities not intervened in CS but included in the extension proposal.

The final KPC included only children below 2 years of age; the baseline had included children below 5. To improve comparability, a secondary analysis of baseline data was restricted to children below 2 years of age.

The final KPC included questions as required by the DIP, the extension proposal new interventions, and the Rapid CATCH list, as well as anthropometric measurements.

Those changes have improved the evaluation design at least for the resident population. Mini-studies will be designed for the migrants to answer some of the following: are they attending health units in the coffee plantations? Are the migrants being exposed to health education? Are they changing practices relevant to health and nutrition? A new position has been created (Impact Assessment Specialist) to assist the existing staff to conduct these studies.

## **B. Objectives of the Survey**

The main objective for the final survey was to determine the impact of the child survival interventions on knowledge, practices and coverages in these targeted communities. (See Appendix for list of objectives). This project was scheduled to end September 29, 2001, but will be extended for another four years, continuing with the same interventions, and additional interventions for reproductive health and an expanded target area.

## **C. Location/Population**

A total of 150 coffee plantations and nearby communities (73 clusters) were surveyed in the Boca Costa. Of these 150 communities, 300 households with children under two years of age participated. In 5 new municipalities, 30 clusters with 300 households in total (10/cluster) were selected to obtain baseline information for the new target area.

## **D. Schedule of activities for the Final Survey**

Table 1.

Date	Activities
August	Activity planning with the communities for the months of June, July and August.
August	Survey Planning -organization and selection of the communities -routes and dates to communities planned
15-29 August	Implementation of materials, and general training
20-29Aug	Pilot of anthropometric methods, survey.
20-29Aug	Final adjustments - copying of questionnaire - distribution of survey materials
30 Aug-12 Sept	Surveys of residents
18 –30 Sept	Review of data collected, and data entry into the computer
Oct-Dec.	Preliminary data analysis and development of conclusions. Debriefing USAID Mission in Guatemala.
1 – 12 Oct	External Evaluation of the CS project
Dec-Jan	Development of Report with conclusions and assessment of project outputs and progress.
Jan 2002	Dissemination of Final KPC Report

## II. METHODOLOGY

### A. Questionnaire

The baseline included an adaptation of the Johns Hopkins PVO-CSSP standardized KPC survey.

However, the KPC2000 had changed the way some questions were phrased: to increase the denominator of ill children, behaviors related to management of ill children are now pooled regardless of the type of morbidity. This is also consistent with the IMCI approach. Also, questions on maternal knowledge of danger signs are now pooled; this fact makes comparisons in some cases not feasible.

**KPC:** This is relatively the same questionnaire that was used in the previous surveys, except new sections on reproductive health (See appendix for sample survey). It was developed by the CSSP and the CORE MEWG, and reviewed by the field team. Wording and the names of foods were also adapted to the local situations. The MINSA staff have reviewed it and given their approval. There are three sets of questions:

- Those aimed to assess if the goals set in the DIP were met (shown in this report)
- Those aimed to set a baseline for the extension in new municipalities, non intervened by the previous CS project.
- Questions from the Rapid CATCH list.

### B. Determination of Sample Size

1. Mothers with children under 24 mo  
Sample sizes were calculated with the following formula:

$$n = Z^2 pq/d^2$$

Where:

**n**= sample size

**Z**= statistical certainty chosen

**p**= estimated coverage or prevalence level/rate to be investigated

**q**= 1-p

**d**= level of precision or sampling error

The statistical certainty was chosen to be 95% (Z=1.96). The value of p was defined as the coverage rate that requires the largest sample size (p=0.5). The value of d depends on the precision or margin of error desired, which for this case was set a 10% (d=0.1). Given the above values, the sample size (n) needed was determined to be:

$$n = (1.96)^2 (0.5 \times 0.5) / (0.1)^2$$

$$n = (3.84) (0.25) / 0.01$$

$$n = 96$$

Due to the fact that it would take a great deal of time to randomly select an identified individual from a survey population, and then perform this selection 96 times (for a sample of  $n=96$ ) an alternative method of cluster sampling was used. Using this method, a minimum of 30 clusters are selected in which several individuals within each cluster are chosen to reach the required sample size.

In order to compensate for the bias introduced by interviewing persons in clusters rather than as randomly selected individuals, experience has shown, given the values of  $Z$ ,  $p$ , and  $d$  above, that an average sample of 300 (10 per cluster) should be used.

As stated above, separate strata of intervened and non-intervened samples were selected. Sample size is enough to show minimal absolute differences of 15% as statistically significant, between baseline and final KPC surveys.

Confidence limits were calculated using the following formula:

**95% confidence limit of  $p = p \pm 2 Z (pq)/n$**

Where:

$p$  = proportion/rate in population found from survey

$Z$  = statistical certainty chosen (if 95%, then  $Z=1.96$ )

$q = 1-p$

$n$  = sample size

## 2. Women of fertile age

Since RH is a new intervention, sample size (300 as calculated as above) combined

previously intervened for CS and new municipalities. This report presents that sample stratified in previously intervened and new municipalities as a preliminary descriptive approach, without statistical analysis. A more detailed analysis will be included with the DIP.

## C. Selection of Clusters

The probability of selection was made proportional to the population of communities to be selected in the Departments of Quetzaltenango, San Marcos and Suchitepequez.

## D. Selection of households

Eligible households were those having at least one living and present child younger than two years of age or a woman of reproductive age. Only information from the youngest child in the family was collected, in the event that there was more than one child <24 months

If no family members was capable of giving the information, the family was immediately replaced, but this event was very uncommon.

Women of fertile age were selected with parallel sampling, in no instance more than one woman per household was interviewed.

## E. Procedures to Collect Clinical Information

### Anthropometry

The same methods were used as in previous surveys to weigh each child and collect height measurements. For the most part, the children were weighed without any clothing. When clothes were being worn, an amount of 2-3 oz. was subtracted to obtain the net weight. Scales (Salter-type, 3 oz. in precision, 50-pound capacity) were adjusted

to zero prior to every measurement. Children under 24 months were measured with a wooden infantometer while lying down.

#### **F. Training of Supervisors and Interviewers**

The complete training period took place over a 10-day period. The staff (HOPE and MOH) received training on survey methodology, KPC surveys, and discussed and practice exercises for the sampling methodology; selection of first and consecutive households, anthropometric procedures, survey questions pertaining to the new reproductive health sections, and appropriate interviewing techniques. A written guide was also supplied to the field team. Training included revision and validation of questions and a pilot survey.

#### **G. Interviewers**

The actual survey was conducted over 12 days: Aug 30- Sept 12 (See table 1). There were three teams of interviewers. Supervisors of each team were responsible for the selection of the initial household and the geographical direction in which each person would proceed in order to collect his/her number of surveys. Each questionnaire was checked for completeness before the survey team left the survey area so that, in the case of missing or contradictory information, the mother and/or adult could be re-interviewed the same day. In addition, all questionnaires were checked again for completeness and accuracy at the end of each day by the supervisor.

#### **H. Data Handling and Processing**

The data were entered in EPI INFO in the Universidad Rafael Landivar. An administrative assistant entered the data in

15 days. A faculty member/researcher who was trained in EPI INFO and who has extensive knowledge in data analysis conducted the initial analysis. The exact age of the child was calculated subtracting the date of birth from the date of the interview. Anthropometric indexes, WAZ (Z-score for weight-for-age), HAZ (Z-score for height-for-age), WHZ (Z-score for weight-for-height) were calculated from EPI INFO. Scores over 6Z or under -6Z (Z being the number of standard deviations from the sample) were assumed outliers and discarded from the analysis. The Z-score of -2z is used to define children with wasting or low weight for height, while the Z score of -2z or below is used to define children with stunting, low height for age.

Frequencies were generated from EPI INFO directly. Graphs showing the results of the above analysis were generated through MS Excel. Vertical lines represent confidence intervals.

This descriptive report focuses on the final KPC survey to address if the objectives stated in the DIP were met.

### **III. RESULTS**

For this final survey a total of 73 clusters were surveyed. This was a total of 600 households with children under two years.

**Table 2. Distribution of the sample.**

Department	Clusters	Interviews
San Marcos	27	292
Quetzaltenango	11	108
Suchitepéquez	5	50
Sololá	0	0
Total	43	450

## 1. Survey of resident mothers with children under the age of two: child health

A total of 299 mothers were surveyed and the results are presented below. As in the baseline, mothers were young ( $27 \pm 7$  years). The proportion that had attended school was significantly higher (69.5% for year 2000) than in baseline (59.5%),  $p=0.006$ . However, the average number of school years was about the same. The main languages spoken at home were Spanish and Quiche, followed by Mam. Two thirds (67%) of the mothers did not work outside the home.

### a. Breastfeeding and Weaning Practices

Early initiation of breastfeeding has improved significantly (Fig.1,  $p=0.0000$ )

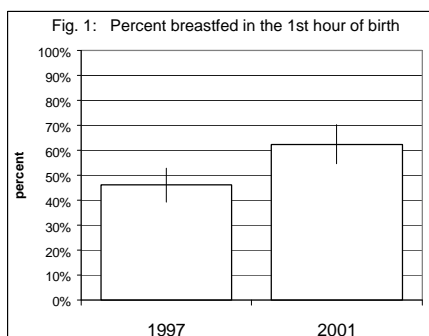
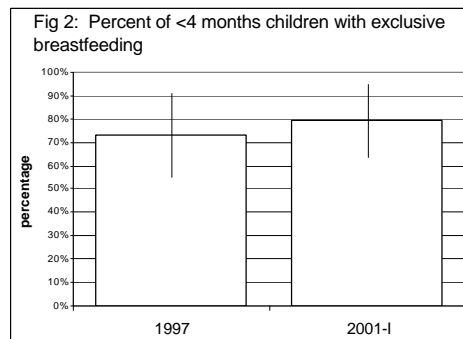
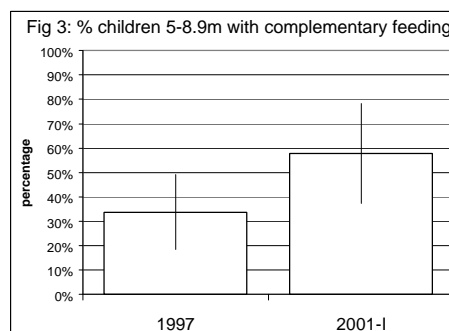


Figure 2 shows the proportion of children under 4 months of age that are exclusively breastfed. The results are not statistically significant due to the fact that this variable uses a small subsample and the improvement was not large enough. Still, the benchmark (maintaining exclusive breastfeeding rate  $>60\%$ ) was met.



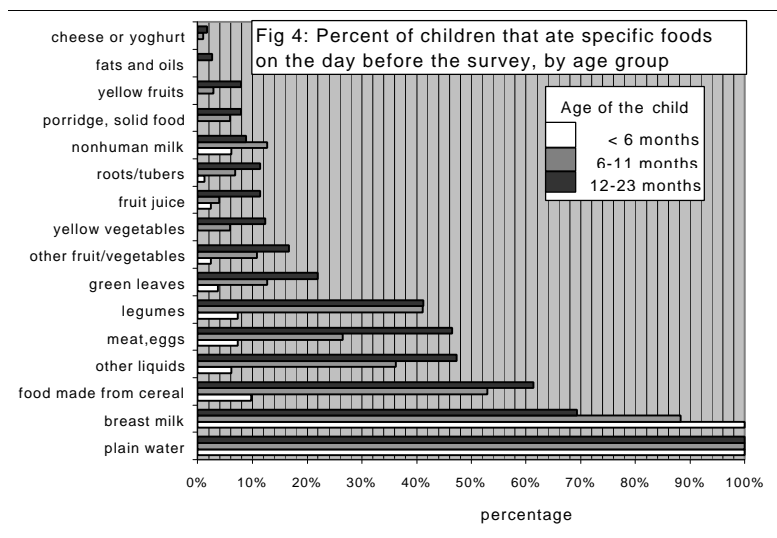
The proportion of children 5-8.9 months receiving complementary feeding is shown in figure 3. In spite of the small number of cases, the differences are statistically significant. The benchmark set in the DIP (20% increase) was achieved. Confidence intervals are overlapped, but the upper limit of the 1997 rate is below of the rate in 2001.



The proportion of children eating three or more meals per day did not increase (42.8 in baseline to 43% in the final KPC); and the benchmark (90%) was not achieved.

The consumption of food from different food groups by children in every age group is shown in the next figure:

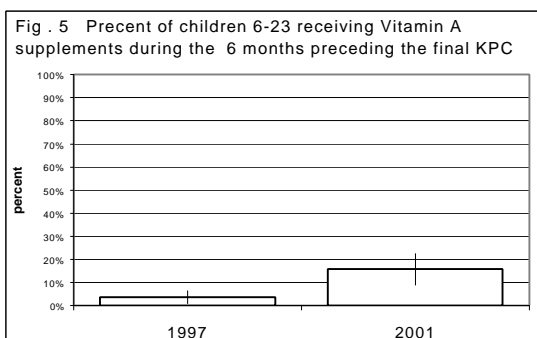




Children start complementary foods with liquids. The fact that 100% of mothers with children less than 6 months old report the consumption of plain water suggests that most mothers do not regard water as part of complementary foods. Most children under 2 years do not receive non-human milk. Foods made out of cereals and legumes - particularly beans and tortillas- are the main dietary staples, with fewer children having meat, eggs or green leaves. A very low proportion of infants consume solid foods.

The proportion of mothers reporting the consumption of foods rich in fat/oils is below 5%, even for children in their second year of life.

Not considering dark green leafy vegetables -with a low bioavailability for carotenoids, the proportion of mothers given the child vitamin-A rich foods (such as dairy, animal liver or eggs) is very small.



The local diet of children continues to lack energy density, and adequate available vitamin A.

Vitamin A supplements were given to about 1/6 of the children according to the family/child health cards (Fig. 5). This is a significant increase over baseline but still less than expected, although no benchmark had been set in the DIP regarded to vitamin A supplementation coverage levels.

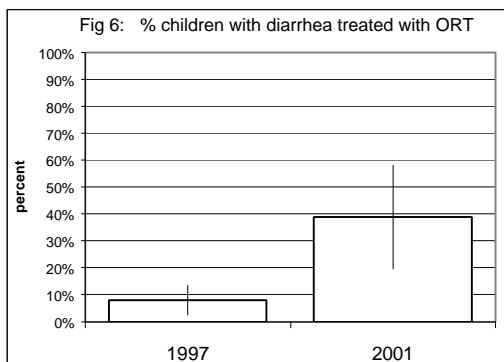
## **b. Nutritional status of children**

While 4.9% (CI = 2.8-8.3) of the children were wasted (WFHZ<-2), 32.7% (CI =27.4-38.6) were stunted (HFAZ<-2). An analysis of the raw information during the final evaluation showed that in 50% of the records, the weight had been rounded to the nearest pound. As a result, the prevalence of malnutrition is overestimated. The baseline survey did not include anthropometric indicators.

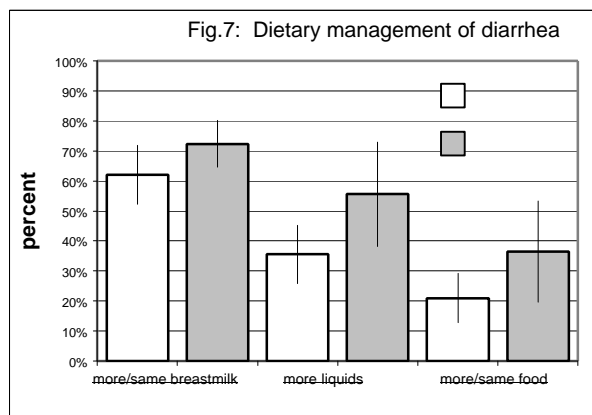
## **c. Diarrhea Case Management**

The proportion of children that had diarrhea in the 2 weeks before the interview was 21.1% in 2001 in comparison with 44.8% at baseline (p=0.0000). However, other factors (season, weather conditions) may have contributed to this reduction in diarrhea incidence.

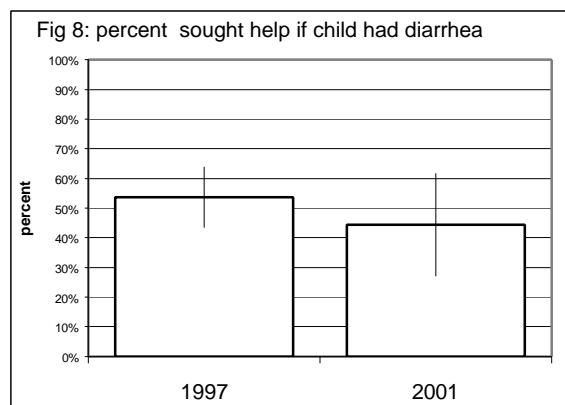
The DIP set a benchmark of 30% of episodes of diarrhea receiving ORT. Figure 6 shows that this was achieved, the difference is statistically significant (p=0.000).



The percentage of mothers who gave more breastmilk during a diarrheal episode increased from 62% at baseline to 72% at the final KPC (Fig. 7). This difference lacks statistical significance. In contrast, the percent of mothers that maintained or increased fluids during diarrhea and the percent that gave the same or more food during diarrhea increased significantly. White bars show 1997 data while gray bars show 2001 data.



The percent of mothers whose children had diarrhea and sought help was lower at the final KPC (Fig. 8). This difference is not statistically significant. The benchmark stated in the DIP (60% care seeking for cases *with dehydration*) was missed.

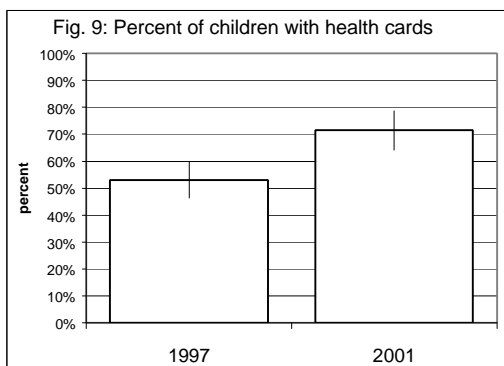


Four percent of the mothers in the final KPC survey reported seeking care for the last diarrheal episode at the plantation health unit. There might be some underreporting. Some mothers might have said that went to health posts/centers, when effectively they went to the basic health unit in the same finca.

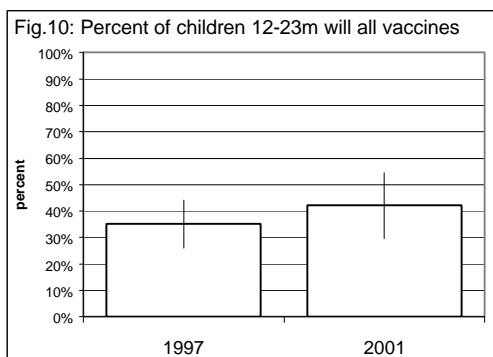
Looking at utilization rates for the basic health units in the fincas on the plantations 43.5% of mothers and infants had sought help there in the last year for various health problems. 86.4% of these mothers said they would seek care at the health unit again if needed. Among those not satisfied with the health unit services, the main reasons were lack of medicines and limited hours.

#### **d. Immunizations**

72% of the mothers could produce a child health (vaccination) card. This is a significant ( $p=0.000$ ) increase from the baseline of 53%. Family cards are no longer in use; they have been replaced by child health cards. The target of at least 60% of families/children with a health card was achieved (Fig.9)



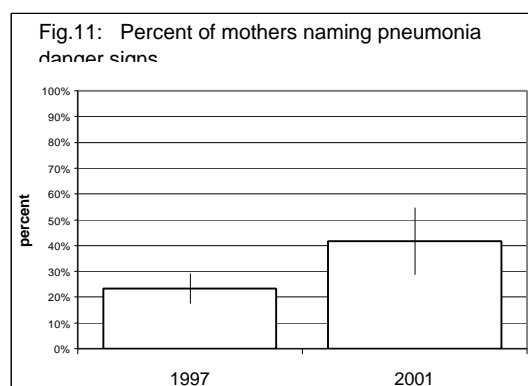
Only 42% of the children (12-23 months) had received a complete set of vaccinations. To be completely immunized, the child needs to have at least received BCG, DPT3, OPV3, and a measles vaccine. See Fig. 10 for non-significant differences from baseline to final. The DIP target (80% of coverage) was not achieved. Still, there were statistically significant increments in coverage of individual vaccines: BCG ( $p=0.0002$ ), OPV3 ( $p=0.005$ ), and DPT3 ( $p=0.018$ ).



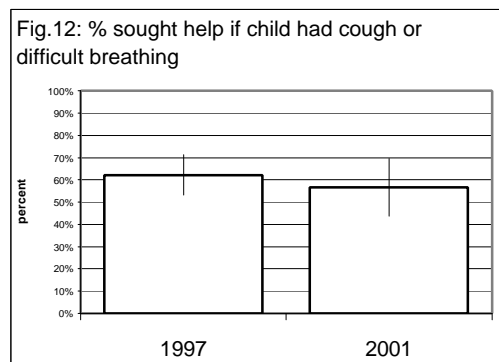
The percent of mothers knowing the age to give the child measles immunization has not changed (21.4% both in baseline and final). The DIP benchmark (50%) was not achieved. Recent changes in immunization regulations, including the use of MMR administered after the first birthday, have made this objective difficult to achieve.

### e. Acute Respiratory Infections (ARI)

The percent of women that can name danger signs for pneumonia increased significantly (Fig. 11). The target set in the DIP (40%) was met.



The percent of mothers that sought help for cough or difficult breathing –as specified in the the DIP- declined from 62.2% at baseline to 56.6% at final. This difference is not statistically significant. The target set in the DIP (60%, lower than the baseline level) was not met.

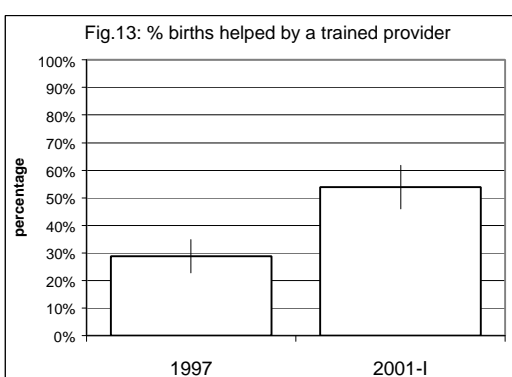


The reduction in demand for curative services has been associated with the current economic crises. The basic Health Units on the plantations provided services to 10% of children with cough or difficult breathing.

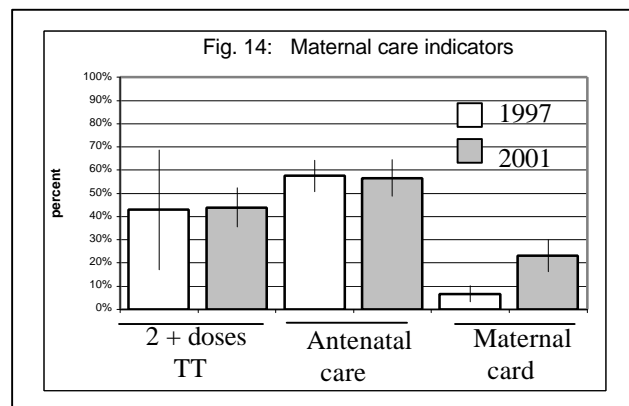
Compared to the baseline survey results, fewer mothers took children with cough to private practitioners ( $p=0.03$ ) and pharmacies ( $p=0.04$ )

## 2. Maternal health

Out of 299 women interviewed, 53.8% had their last birth assisted by a trained provider in comparison with 28.8% at baseline, see figure 13. The DIP benchmark (40%) was achieved:



The proportion of women seeking antenatal care in their last pregnancy was slightly lower in 2001, but the reduction lacks statistical significance (Figure 14). The benchmark (70%) was not achieved. This reduction is consistent with reduced care-seeking for child illnesses and may be related to the economic situation.

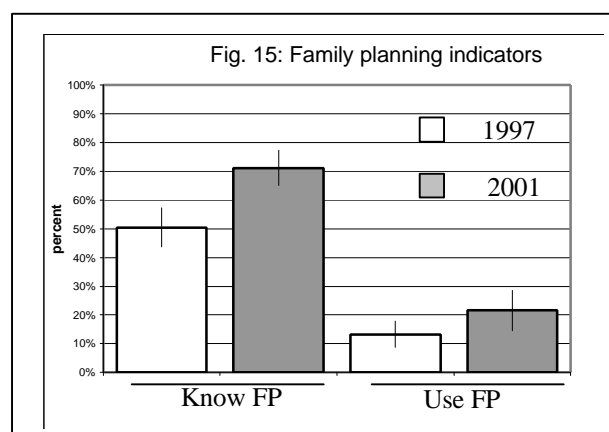


The percent of women with at least two doses of tetanus (TT) vaccine did not change significantly, and the DIP target (70%) was not achieved. Only women with prenatal cards – 23% of the total- are included in this analysis, a subgroup of the women interviewed.

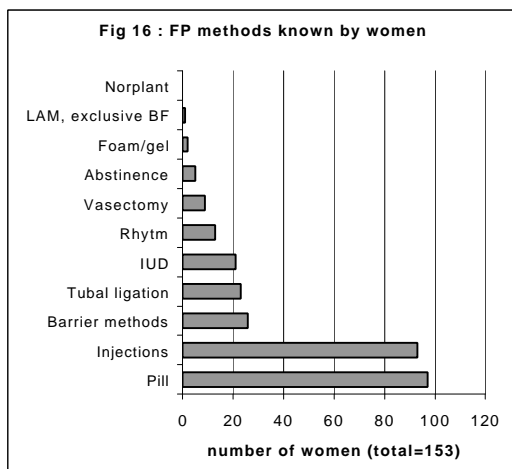
The proportion of women able to show a maternal card increased significantly from baseline ( $p=0.0000$ ).

In the final KPC, 13.2 % of women said they had had at least one postpartum visit; there are no data in the baseline survey for comparison.

The percent of women that can name a family planning (FP) method increased significantly from baseline ( $p=0.0000$ ). The use of FP methods also increased significantly ( $p=0.01$ ).



Child spacing methods most frequently mentioned by women in the year 2001 were oral anovulators (pills) and injectables: Knowledge of pills ( $p=0.0000$ ), injections ( $p=0.0000$ ), vasectomy ( $p=0.0035$ ), rhythm ( $p=0.0098$ ), and condoms ( $p=0.0002$ ) at project end was higher than during the baseline survey.



When asked to recollect previous exposure to health messages through radio, 39% acknowledged exposure to radio messages. The main topics mentioned by mothers were:

- Child health (infant feeding, diarrhea, pneumonia, food hygiene, personal hygiene, immunizations, breastfeeding);
- Maternal health (maternal feeding, prenatal care, safe delivery, pregnancy, breastfeeding); Reproductive health (child spacing) and
- Family Health (cholera, hygiene, dengue, safe food/water, latrines)

### 3. Survey of women of reproductive age

153 women of reproductive age were interviewed. Only 13 (8.5%) were pregnant at the time of the survey. Average age was 29 years. 70% had attended school and the average number of schooling years was 4. All respondents spoke Spanish but 55.6% also spoke Mam, 33% Quiche and 11% Tzutuhil as their first language. 27% were working outside the home, 70% of these in handicrafts.

**STD/AIDS knowledge:** 119 (77.8%) acknowledged having heard about AIDS, 20

(17%) mentioned condoms as a way to prevent AIDS, and 30% mentioned monogamy.

Women do not know about signs and symptoms of STDs in males, 22 (14%) mentioned weight loss as a sign. They mentioned more signs of STDs affecting women: abdominal pain, vaginal discharge, pain when urinating, and weight loss.

**Family planning:** Most frequently recalled methods were anovulators –oral and injectable (60%)- followed by female sterilization and condoms.

While 60% said they did want to have another child in the following two years, only 33 (22%) were using a FP method. Methods used most frequently were female sterilization (36%) and injectable anovulators (36%).

**Personal hygiene:** 91% of women reported handwashing before handling foods, 77% after going to the latrine, 40% before feeding the infant, and 23% after handling baby feces. The latter is consistently with local beliefs that baby stools are not harmful. 95% of women use consistently a flush toilet or latrine because they have one at home.

**Radio messages:** 43% recalled education messages disseminated by radio, 22 (33%) recalled messages about child health, 38 (56%) about family health and 7 (10%) about maternal health. It is not clear whether there are fewer about maternal health or whether women are paying more attention to family and child health than to their own health.

**Utilization of plantation health units:** 49 (48.5%) women said to have visited a health unit in the last year. 92% would visit the unit again.

**Table 3: Project Performance (DIP) Indicators**

Indicator	EOP Target	Baseline (1997) resident population			Intervened (2001) resident population			Difference Final-Base intervened	Chi <sup>2</sup>
		n	%	CI 95%	n	%	CI 95%		
1.1 Utilization of MCH services	>10%	NR			298	43.5%			P value
2.1(a) Fully immunized children 12-23m	80%	208	35.1%	(28.6 – 42.0)	121	42.1%	(33.2 – 51.5)	<b>+7.0</b>	0.203
2.2 Mothers know to get measles vaccine @ 9m	50%	420	21.4%	(17.2 – 25.7)	299	21.4%	(16.9 – 26.5)	0.0	0.997
2.3 Families with child health cards	60%	420	53.1%	(48.2 – 57.9)	298	71.5%	(66.0 – 76.5)	<b>+18.4</b>	<b>0.000</b>
3.1(b) Exclusive breastfeeding, 0-3.9 m	60%	46	73.9%	(58.9 – 85.7)	53	79.2%	(65.9 – 89.2)	<b>+5.3</b>	0.530
3.2 Complementary feeding, 5-8.9 m	>20 pts	74	33.8%	(23.2 – 45.7)	45	57.8%	(42.2 – 72.3)	<b>+24.0</b>	<b>0.010</b>
3.3 Three or more meals previous day [4-12m]	90%	145	42.8%	(34.6 – 51.2)	114	43.0%	(33.7 – 52.6)	<b>+0.2</b>	0.972
4.1 Diarrhea cases (0-2 yr) seeking care	60%	188	53.7%	(46.3 – 61.0)	49	57.1%	(42.2 – 71.2)	<b>+3.4</b>	0.668
4.2 Diarrhea -Dehydration cases (0-2 yr) using ORT	30%	188	8.0%	(4.5 – 12.8)	49	38.8%	(25.2 – 53.8)	<b>+30.8</b>	<b>0.000</b>
4.3 Mothers maintain/ increase feeding during/after diarrhea	60%	188	21.0%	(16.5- 26.2)	63	36.5%	(24.7- 49.6)	<b>+15.5</b>	<b>0.012</b>
5.2 . Mothers who recognize signs of pneumonia	40%	420	23.3%	(19.4- 27.7)	113	41.6%	(32.4- 51.2)	<b>+18.3</b>	<b>0.0001</b>
5.3 Care seeking for cough or difficult breathing	60%	217	62.2%	(55.4 – 68.7)	113	56.6%	(45.3 – 67.5)	-5.6	0.326
6.1 Mothers seeking prenatal care	70%	420	57.4%	(52.5 – 62.1)	297	56.6%	(50.7 – 62.3)	-0.8	0.828
6.2(b) Mothers with TT2	70%	28	42.9%	(24.5 – 62.8)	67	43.9%	(31.7 – 56.7)	<b>+1.0</b>	0.969
6.3 Births attended by trained provider	40%	420	28.8%	(24.8 – 32.9)	299	53.8%	(48.0 – 59.6)	<b>+25.0</b>	<b>0.000</b>

Positive changes in bold.

Confidence interval of Final Survey data @ 95%.

Significant changes are highlighted.

NR: Not Reported NA: Not Applicable

**Table 4: PRIORITY CHILD HEALTH INDICATORS**  
**(Rapid CATCH) – HOPE CS Guatemala, August-**  
**September 2001**

1. Percentage of children age 0–23 months who are underweight (<2 SD from the median weight-for-age, according to the WHO/NCHS reference population): **24.6%**

#### **Prevention of Illness/Death**

2. Percentage of children age 0–23 months who were born at least 24 months after the previous surviving child : Not available
3. Percentage of children age 0–23 months whose births were attended by skilled health personnel: **58.3%**
4. Percentage of mothers with children age 0–23 months who received at least two tetanus toxoid injections before the birth of their youngest child: **43.9 %**
5. Percentage of children age 0–5 months who were exclusively breastfed during the last 24 hours: **79.2%**
6. Percentage of children age 6–9 months who received breastmilk and complementary foods during the last 24 hours: **57.8%**
7. Percentage of children age 12–23 months who are fully vaccinated (against the five vaccine-preventable diseases) before the first birthday: **42.1 %**
8. Percentage of children age 12–23 months who received a measles vaccine: **48.9%**

9. Percentage of children age 0–23 months who slept under an insecticide-treated net (in malaria risk areas) the previous night: **32.7%**

10. Percentage of mothers with children age 0–23 months who cite at least two known ways of reducing the risk of HIV infection: **45.7%**

11. Percentage of mothers with children age 0–23 months who report that they wash their hands with soap/ash before food preparation, before feeding children, after defecation, and after attending to a child who has defecated: **94% before handling food, 23% after handling baby feces**

#### **Management/Treatment of Illness**

12. Percentage of mothers of children age 0–23 months who know at least two signs of childhood illness that indicate the need for treatment **85%**
13. Percentage of sick children age 0–23 months who received increased fluids and continued feeding during an illness in the past two weeks: **More liquids 55%, more/same food 36.5% [only diarrhea]**





## Frequency tables: Women with children

**Table 1-a: Distribution of women by Department**

Dept .	Freq	Percent	Cum.
San Marcos	190	63.5%	63.5%
Quetzalto.	73	24.4%	88.0%
Suchitepeq	6	12.0%	100.0%
Total	299	100.0%	

**Table 2: Did the mother ever attended School?**

Attendance	Freq	Percent	Cum.
Yes	207	69.5%	69.5%
No	91	30.5%	100.0%
Total	298	100.0%	

**Table 3: Number of years at school (only those who ever attended)**

Number of years	Freq	Percent	Cum.
1	42	20.2%	20.2%
2	60	28.8%	49.0%
3	41	19.7%	68.8%
4	18	8.7%	77.4%
5	9	4.3%	81.7%
6	23	11.1%	92.8%
7	1	0.5%	93.3%
8	2	1.0%	94.2%
9	6	2.9%	97.1%
11	1	0.5%	97.6%
12	5	2.4%	100.0%
Total	208	100.0%	

**Table 4: Do you do any income generating work?**

Answers	Freq	Percent	Cum.
Nothing	195	66.8%	66.8%
Handicrafts	2	0.7%	67.5%
Harvesting fruit	63	21.6%	89.0%
Selling agricultural produ	5	1.7%	90.8%
Selling foods	6	2.1%	92.8%
Domestic servant	8	2.7%	95.5%
Street/ store vendor	10	3.4%	99.0%
Salaried worker	3	1.0%	100.0%
Total	292	100.0%	

Table 5 Comparison of general characteristics of the sample 1997- 2001

INDICATOR	KPC 1997			KPC 2001			DIFF.	P value
	Sample	%	CI 95%	Sample	%	CI 95%		
<b>LANGUAGE:</b>								
SPANISH	420	90.5	(87.2; 93.0)	297	93.6	(83.9; 98.4)	3.1	0.1510
QUICHE		4.3	(2.6; 6.8)		2.4	(1.0; 4.8)	-1.9	0.1240
MAM		3.8	(2.3; 6.2)		2.1	(0.2; 2.9)	-1.7	0.1830
<b>MATERNAL AGE (years)</b>	420	27.1	7.4	287	27.0	7.1	-0.1	0.8520
(Mean, Std deviation)								
SCHOOL ATTENDANCE	420	59.5	(54.6; 64.2)	298	69.5	(63.9; 74.6)	10.0	0.0063
YEARS IN SCHOOL	250	3.1	1.6 (DE)	208	3.3	2.4 (DE)	0.2	0.2870
(Mean, standard deviation)								
<b>ECONOMIC ACTIVITY OUTSIDE HOME</b>								
NONE	420	61.4	(56.6; 66.1)	292	66.8	(61.1; 72.2)	5.4	0.1440
HANDICRAFTS		1.1	(0.3; 2.6)		0.7	(0.1; 2.5)	-0.4	0.7710
AGRICULTURE		26.0	(21.9; 30.5)		21.6	(17.0; 26.7)	-4.4	0.1790
STREET VENDOR		1.4	(0.6; 3.2)		1.7	(0.6; 4.0)	0.3	0.9940
OWNS A BUSSINESS		4.3	(2.6; 6.8)		3.4	(1.7; 6.2)	-0.9	0.5610
SALARIED WORKER		1.7	(0.7; 3.6)		1.1	(0.2; 3.0)	-0.6	0.6970

**Table 6:Who takes care of (name) while you are away from home?**

Answers	Freq	Percent	95% Conf Limit
Mother takes child	189	63.2%	57.5%-68.7%
Husband/partner	10	3.3%	1.6%- 6.1%
Older siblings	45	15.1%	11.2%-19.6%
Relatives	45	15.1%	3.3%- 8.9%

**Table 7:How long after birth did you put (name) to the breast?**

Hours after birth	Freq	Percent	Cum.
less than one	185	62.5%	62.5%
one to eight	58	19.6%	82.1%
more than eight	53	17.9%	100.0%
Total	296	100.0%	

**Table 8: How many times was (name) fed yesterday?**

Feedings	Freq	Percent	Cum.
1	11	4.7%	4.7%
2	38	16.4%	21.1%
3	54	23.3%	44.4%
4	32	13.8%	58.2%
5	31	13.4%	71.6%
6	32	13.8%	85.3%
7	5	2.2%	87.5%
8	20	8.6%	96.1%
9	9	3.9%	100.0%
Total	232	100.0%	

**Table 9: Foods eaten the previous day by age group**

Food/food group	Children< 2y		Children<1y		Infants<6months	
	Freq	%	Freq	%	Freq	%
Breast milk	252	84.3	158	95.8	79	100.0
Cereals	132	44.1	51	30.9	7	8.9
Legumes	95	31.8	37	22.4	4	5.1
Meats and/or eggs	86	28.8	24	14.5	3	3.8
Green vegetables	41	13.7	12	7.3	2	2.5
Other vegetables	32	10.7	10	6.1	2	2.5
Non-human milk	28	9.4	14	8.5	5	6.3
Yellow vegetables	20	6.7	4	2.4	0	0.0
Tubers and roots	20	6.7	5	3.6	0	0.0
Fruit juice	19	6.4	4	2.4	1	1.3
Gruels, solid food	15	5.0	5	3.0	0	0.0
Yellow fruits	12	4.0	3	1.8	0	0.0
Cheese	3	1.0	1	0.6	0	0.0

A.

**Table 10: Comparison of child feeding practices, 1997-2001**

INDICATOR	DIP bnch.	KPC survey 1997			KPC survey 2001			DIFF P value	
		Sample	%	CI 95%	Sample	%	CI 95%		
Percent of children given 3 or more feedings the day preceding the survey	90%	145	42.80	(34.6 – 51.2)	114	43.00	(33.7 – 52.6)	0.2	0.9720
Percent of children (age group 5-8.9 months) that are receiving semi-solid or solid food	>20 pts	74	33.80	(23.2 – 45.7)	45	57.80	(42.2 – 72.3)	24.0	0.0100
Percent of children (age group 0-5.9 months) who were fed breastmilk only in the last 24 hours	60%	46	73.90	(58.9 – 85.7)	53	79.20	(65.9 – 89.2)	5.3	0.5300
Percent of children aged 0-23 months who were breastfed in the first hour of birth		413	46.20	(41.4 - 51.2)	296	62.50	(56.7 - 68.0)	16.3	0.0000
Percent of mothers that maintain or increase breastfeeding during and after child diarrhea	60%	188	62.00	(48.8 – 73.9)	63	72.30	(65.4 – 78.6)	10.3	0.1190
Percent of children aged 0-23 months with diarrhea in the last two weeks that were offered more fluids during the illness		188	35.60	(28.8 - 42.9)	63	55.60	(42.5 - 68.1)	20.0	0.0050
Percent of children aged 0-23 months with diarrhea in the last two weeks that were offered the same amount or more food during the illness		188	21.00	(16.5 - 26.2)	63	36.50	(24.7 - 49.6)	15.5	0.0120
Percent of children aged 6-23 months that had received vitamin A supplements in the 6 months preceding the survey	NP	334	3.60	(2.0 – 6.4)	217	15.70	(10.7 – 20.7)	12.1	0.0001



**Table 11: Prevalence of stunting (low height for age)**

	Male		Female		Both sexes	
Proportion under-2 Z	48	35.3%	44	30.3%	92	32.7%
95% CI	(27.4,44.0)		(23.1,38.6)		(27.4,38.6)	
Proportion under -3Z	16	11.8%	19	13.1%	35	12.5%
95% CI	(7.1;18.7)		(8.3;20.0)		(8.9,17.0)	

**Distribution of height-for-age**

Median	-1.46	-1.15	-1.31
Mean	-1.40	-1.24	-1.32
95% CI of the mean	(-1.67,-1.13)	(-1.50,-0.98)	(-1.51,-1.13)
Standard Deviation	1.27	1.61	1.61

**Table 12: Prevalence of wasting (low weight for height)**

Proportion <-2.0	8	6.0%	6	4.0%	14	4.9%
95% CI	(2.8,11.8)		(1.6,8.9)		(2.8,8.3)	
Proportion <-3.0	1	0.7%	3	2.0%	4	1.4%
95% CI	(0.0,4.7)		(0.5,6.2)		(0.5,3.8)	

**Distribution of weight-for-height**

Median	-0.35	0.04	-0.16
Mean	-0.21	0.02	-0.09
95% CI	(-0.42,0.01)	(-0.19,0.23)	(-0.24,0.06)
Std. deviation	1.13	1.29	1.29

**Table 13: Prevalence of global malnutrition**

Proportion <-2.0	38	27.3%	34	22.2%	72	24.7%
95% IC	(20.3,35.7)		(16.1,29.8)		(19.9,30.1)	
Proportion <-3.0	7	5.0%	9	5.9%	16	5.5%
95% IC	(2.2,10.5)		(2.9,11.2)		(3.3,8.9)	

**Distribution of weight-for-age**

Median	-1.14	-1.00	-1.06
Mean	-1.06	-0.85	-0.95
95% CI	(-1.29,-0.82)	(-1.09,-0.61)	(-1.12,-0.78)
Std. Deviation	1.20	1.51	1.47

Table 14: Immunization coverage rates, 1997-2001

INDICATOR	DIP bench	KPC survey 1997			KPC survey 2001			DIFF	P value
		Sample	%	CI 95%	Sample	%	CI 95%		
Percent of children aged 0-23 months who have a immunization card	60%	420	53.10	(48.2 – 57.9)	298	71.50	(66.0 – 76.5)	18.4	0.0000
Percent of children aged 12-23 months that who received BCG, DPT3, OPV3 and measles vaccines	80%	208	35.10	(28.6 – 42.0)	121	42.10	(33.2 – 51.5)	7.0	0.2030
Percent of children aged 0-12 months that have specific vaccines:									
BCG		210	49.5	(42.6; 56.5)	185	67.6	(59.7; 73.3)	18.1	0.0002
OPV (newborn)		210				26.0	(19.6; 33.3)		*
OPV 1		210	52.9	(45.9; 59.8)		57.3	(49.8; 64.5)	4.4	0.3760
OPV 2		210	36.4	(30.1; 43.6)		46.5	(39.1; 54.0)	10.1	0.0370
OPV 3		210	22.9	(17.4; 29.1)		35.7	(28.2; 43.0)	12.8	0.0050
DPT 1		210	48.1	(41.2; 55.1)		54.6	(47.1; 61.9)	6.5	0.1970
DPT 2		210	35.7	(29.2; 42.6)		44.3	(37.0; 51.8)	8.6	0.0810
DPT 3		210	22.4	(16.9; 28.6)		33.0	(26.3; 40.3)	10.6	0.0180
Percent of children aged 12-23 months who received measles vaccine		208	40.4	(33.7; 47.4)	121	47.9	(38.8; 57.2)	7.5	0.1820
Percent of mothers that know when measles vaccine should be administered to the child	50%	420	21.40	(17.2 – 25.7)	299	21.40	((16.9 – 26.5)	0.0	0.9970



B. Table 15: Child morbidity, 1997-2001

INDICATOR	KPC survey 1997			KPC survey 2001			DIFF	P value
	Sample	%	CI 95%	Sample	%	CI 95%		
Percent of children 0-23 months with cough in the 2 weeks preceding the survey	420	51.70	(46.8 - 56.5)	299	37.80	(32.3 - 43.6)	-13.9	0.0002
Percent of children aged 0-23 months with cough in the last two weeks who were taken to any provider	217	62.20	(55.4 - 68.7)	113	41.60	(32.4 - 51.2)	-20.6	0.0003
Place where the mother sought help								
Hospital	135	3.70	(1.2 - 8.4)	47	0.00		-3.7	
Health center/ post	135	18.50	(12.4 - 26.1)	47	27.70	(15.6 - 46.6)	9.2	0.1842
Health unit- coffee estate	135	0.00		47	10.60	(3.5 - 23.1)	10.6	
Private provider	135	28.10	(20.8 - 36.5)	47	12.80	(4.8 - 25.7)	-15.3	0.0339
Pharmacy	135	25.20	(18.1 - 33.1)	47	10.60	(3.5 - 23.1)	-14.6	0.0363
Health promoters	135	6.70	(3.1 - 12.3)	47	4.30	(0.5 - 14.5)	-2.4	0.8086
Traditional birth attendant	135	4.40	(1.6 - 9.4)	47	0.00		-4.4	
Percent of children 0-23 months with diarrhea in the 2 weeks preceding the survey	420	44.80	(40.0 - 49.7)	299	21.10	(16.6 - 26.1)	-23.7	0.0000
Percent of children aged 0-23 months with diarrhea in the last two weeks who were taken to any provider	188	53.70	(46.3 - 61.0)	63	44.40	(31.9 - 57.5)	-9.3	0.2022
Percent of children aged 0-23 months with diarrhea in the last two weeks who received Oral Rehydration Therapy	188	8.00	(4.5 - 12.8)	49	38.80	(25.2 - 53.8)	30.8	0.0000
Place where the mother sought help								
Hospital	101	5.00	(1.6 - 11.2)	28	7.10	(0.9 - 23.5)	2.1	0.9854
Health unit- coffee estate	101	0.00		28	3.60	(6.1 - 6.9)	3.6	
Private provider	101	16.80	(10.1 - 25.6)	28	10.70	(2.3 - 28.2)	-6.1	0.6196
Pharmacy	101	16.80	(10.1 - 25.6)	28	14.30	(4.0 - 32.7)	-2.5	0.9731
Health promoters	101	5.90	(2.2 - 12.5)	28	14.30	(4.0 - 32.7)	8.4	0.2883
Traditional birth attendant	101	5.90	(2.2 - 12.5)	28	0.00		-5.9	

**Table 16-a: What are the signs of malaria that would cause you to seek help?**

SIGN / SYMPTOM	Freq	Percent
Do not know	137	45.80%
Fever	138	46.20%
Shivering	108	36.10%
Headache	47	15.70%
Seizures	1	0.30%
Unable to drink	7	2.30%

**Table 16-b: What are the signs of dengue that would cause you to seek help?**

SIGN/SYMPTOM	Freq	Percent
Do not know	158	52.80%
Headache	61	20.40%
Muscles aching	41	13.70%
Joints/bones aching	35	11.70%
Eyes aching	2	0.70%
Irritability	9	3.00%

**C. Table 16-c: Do you have bednets at home?**

	Freq	Percent
Yes	149	49.80%
No	145	48.50%
Do not know	2	0.70%
Total	299	



D. Table 17: Maternal Health, 1997-2001

INDICATOR	DIP	KPC survey 1997			KPC survey 2001			DIFF	P value
		Sample	%	CI 95%	Sample	%	CI 95%		
<u>ANTENATAL care</u>	>10%								
Provided by a physician		241	38.60	(32.4 - 45.1)	168	55.40	(37.0 - 52.5)	16.8	0.0008
Provided by a nurse		241	25.30	(19.9 - 31.3)	168	19.00	(13.4 - 25.8)	-6.3	0.1370
Provided by a TBA		241	33.60	(27.7 - 40.0)	168	23.80	(17.6 - 31.0)	-9.8	0.0326
Provided by a health promoter		241	0.40	(0.0 - 2.3)	168	1.20	(0.1 - 4.2)	0.8	0.7524
<b>BIRTH</b>									
Delivery attended by physician		241	17.40	(13.9 - 21.4)	168	37.50	(30.2 - 45.3)	20.1	0.0000
Delivery attended by a nurse		241	9.50	(7.0 - 12.8)	168	10.10	(6.0 - 15.7)	0.6	0.8471
Delivery attended by a TBA		241	63.80	(59.0 - 68.4)	168	50.00	(42.2 - 57.8)	-13.8	0.0050
Delivery attended by a health promoter		241	0.50	(0.1 - 1.9)	168	0.60	(0.1 - 4.2)	0.1	0.7524

E. Table 18: Other indicators of maternal health and child spacing, 1997-2001

INDICATOR	DIP Bench	KPC survey 1997			KPC survey 2001			DIFF	P value
		Sample	%	CI 95%	Sample	%	CI 95%		
Percent of mothers with a maternal card		420	6.70	(4.6 - 9.6)	287	23.30	(18.6 - 28.8)	16.6	0.0000
Percent of mothers who had at least one prenatal visit prior to the birth of her youngest child less than 24 months of age	70%	420	57.40	(52.5 - 62.1)	297	56.60	(50.7 - 62.3)	-0.8	0.8280
Percent of mothers that had antenatal care by a trained provider	40%	420	28.80	(24.8 - 32.9)	299	53.80	(48.0 - 59.6)	25.0	0.0000
Percent of mothers who received at last two tetanus toxoid injections	70%	28	42.90	(24.5 - 62.8)	67	43.90	(31.7 - 56.7)	1.0	0.9690
Percent of mothers who had at least one post-partum check-up			NR		299	13.20	(9.7 - 17.8)		
Percent of nonpregnant mothers who are using a modern method of child spacing		420	13.30	(10.3 - 17.0)	153	21.60	(15.3 - 28.9)	8.3	0.0160
<b>Maternal knowledge of Child spacing methods</b>									
Mother does not know any		420	49.50	(44.7 - 54.4)	153	28.80	(21.7 - 36.6)	-20.7	0.0000
Female sterilization		420	10.20	(7.6 - 13.6)	153	15.00	(9.8 - 21.7)	4.8	0.1117
Vasectomy		420	1.20	(0.4 - 2.4)	153	5.90	(2.7 - 10.9)	4.7	0.0035
Nortplant		420	1.00	(0.3 - 2.6)	153	0.00		-1.0	
Anovulatory injections		420	31.90	(27.5 - 36.6)	153	60.80	(52.6 - 68.6)	28.9	0.0000
Anovulatory, Pills		420	39.50	(34.8 - 44.4)	153	63.40	(55.2 - 71.0)	23.9	0.0000
Intrauterine devices		420	9.80	(7.2 - 13.1)	153	13.70	(8.7 - 20.2)	3.9	0.1766
Diaphragm		420	1.20	(0.4 - 2.9)	153	0.00		-1.2	
Condom		420	6.90	(4.8 - 9.9)	153	17.00	(11.4 - 23.9)	10.1	0.0002
Foam		420	1.00	(0.3 - 2.6)	153	1.30	(0.2 - 4.6)	0.3	0.9245
LAM - exclusive breast feeding		420	0.50	(0.1 - 1.9)	153	0.70	(0.0 - 3.6)	0.2	0.7524
Rhythm		420	3.30	(1.9 - 5.7)	153	8.50	(4.6 - 14.1)	5.2	0.0098
Abstinence		420	0.70	(0.2 - 2.3)	153	3.30	(1.1 - 7.5)	2.6	0.0571

**Table 19-a: Have you ever taken your child to the health Unit (inside the coffee estate) in the last year?**

Answer	Freq	Percent
Yes	130	43.50%
No	67	22.40%
Total	298	

**Table 19-b: Would you take your child again to the Health Unit?**

Answer	Freq	Percent
Yes	121	40.50%
No	19	6.40%
	299	

**Table 19-c: Why not?**

Answer	Freq	Percent
Closed	4	1.30%
No medicines available	9	3.00%
Reduced hours of services	5	1.70%
Other	5	1.70%

### **Women of fertile age**

**Table 1 : Distribution of the sample by Department**

DEPARTMENT	Freq	Percent	Cum.
San Marcos	107	69.5%	69.5%
Quetzaltenango	31	20.1%	89.6%
Suchitepequez	16	10.4%	100.0%
Total	154	100.0%	

**Table 2: Percent of respondents that were pregnant at the moment of the survey**

Pregnant	Freq	Percent	Cum.
Yes	13	8.4%	8.4%
No	141	91.6%	100.0%
Total	154	100.0%	

**Table 3.: Did the woman ever attended School?**

Attendance	Freq	Percent	Cum.
yes	106	68.8%	68.8%
No	48	31.2%	100.0%
Total	154	100.0%	

**Table 4.: Number of years at school (only those who ever attended).**

Years	Freq	Percent	Cum.
1	7	6.5%	6.5%
2	28	25.9%	32.4%
3	22	20.4%	52.8%
4	12	11.1%	63.9%
5	6	5.6%	69.4%
6	23	21.3%	90.7%
8	2	1.9%	92.6%
9	2	1.9%	94.4%
11	2	1.9%	96.3%
12	3	2.8%	99.1%
14	1	0.9%	100.0%
Total	108	100.0%	

**Table 5.: Do you do any income generating work?**

Work outside the home	Freq	Percent
None	110	78.6%
Handicrafts	21	15.0%
Agriculture	6	4.3%
Selling agricultural pr	1	0.7%
Domestic servant	1	0.7%
Total	140	100.0%

**Table 6.:In there anything a person can do to avoid getting AIDS?**

Answer	Freq	Percent.
Nothing	2	1.3%
Abstain from sex	25	16.2%
Use condoms	21	13.6%
Stay faithful to one partner	35	22.7%
Limit number of sexual partners	6	3.9%

Avoid sex with prostitutes	18	11.7%
Avoid sex with persons who have many	6	3.9%
Avoid blood transfusions	8	5.2%
Avoid injections	14	9.1%
Avoid kissing	3	1.9%
Avoid mosquito bites	1	0.6%
Avoid sharing razors/ blades	7	4.5%
Don't know	41	26.6%

**Table 7.: In man, what signs and symptoms would lead you to think that he has an infection that can be transmitted through sexual contact?**

Sign/ symptom	Freq	Percent
Abdominal pain	10	6.5%
Genital discharge	5	3.2%
Foul smelling discharge	1	0.6%
Burning pain on urination	5	3.2%
Inflammation in genital area	4	2.6%
Genital sores/ ulcers	4	2.6%
Genital warts	1	0.6%
Blood in urine	3	1.9%
Weight loss	22	14.3%
Impotence	1	0.6%
No Syntoms	2	1.3%
Don't know	109	70.8%

**Table 8.: In woman, what signs and symptoms would lead you to think that he has an infection that can be transmitted through sexual contact?**

Signs/ symptoms	Freq	Percent
Abdominal pain	15	9.7%
Genital discharge	27	17.5%
Foul smelling discharge	8	5.2%
Burning pain on urination	12	7.8%
Inflammation in genital area	3	1.9%
Genital sores/ ulcers	1	0.6%
Genital warts	4	2.6%
Blood in urine	3	1.9%
Weight loss	20	13.0%
Don't know	94	61.0%

**Table 9: Knowledge of family planning methods**

Method	Freq	Percent
Female sterilization	23	14.9%
Vasectomy	9	5.8%



Injections	94	61.0%
Pills	98	63.6%
Intrauterine device	22	14.3%
Condoms	26	16.9%
Foam/Gel	2	1.3%
LAM, exclusive breastfeeding	1	0.6%
Rhythm	14	9.1%
Abstinence	5	3.2%
Don't know	44	28.6%

**Table 10: Women willing to have a pregnancy in the next 2 years**

	Freq	Percent	Cum.
Yes	43	28.1%	28.1%
No	91	59.5%	87.6%
Don't know	19	12.4%	100.0%
Total	153	100.0%	

**Table 11: Couples using any family planning method**

Use any method	Freq	Percent	Cum.
Yes	33	21.4%	21.4%
No	121	78.6%	100.0%
Total	154	100.0%	

**Table 12: Family planning method used**

Method	Freq	Percent	Cum.
Female sterilization	12	36.4%	36.4%
Vasectomy	1	3.0%	39.4%
Norplant	12	36.4%	75.8%
Injections	3	9.1%	84.8%
Pills	1	3.0%	87.9%
Condom	1	3.0%	90.9%
Rhythm	3	9.1%	100.0%
Total	33	100.0%	

**Table 13: Handwashing practices**

When do you wash your hands?	Freq	Percent
Before food preparation	141	91.6%
Before feeding the child	62	40.3%
After defecation	120	77.9%
After attending a child who Has Defecated	36	23.4%

**Table 14: Place used for excreta disposal**

place	Freq	Percent	Cum.
Latrine or flush toilet	146	94.8%	94.8%
Open field/ bush	7	4.5%	99.4%
River,superficial water	1	0.6%	100.0%
Total	154	100.0%	

**Table 15: Recalling health messages in local radio**

Recalls health me	Freq	Percent	Cum.
Yes	66	43.1%	43.1%
No	87	56.9%	100.0%
Total	153	100.0%	

**Table 16: Have you ever sough help at the health Unit (inside the coffee estate) in the last year?**

Answer	Freq	Percent	Cum.
Yes	50	49.0%	49.0%
No	52	51.0%	100.0%
Total	102	100.0%	

**Table 17: Would you sough help again?**

Answer	Freq	Percent	Cum.
Yes	48	97.0%	97.0%
No	1	3.0%	100.0%
Total	49	100.0	

**Proyecto Hope**  
**Cuestionario para las madres con niños menores de 2 años sobre**  
**Conocimientos, Prácticas y Coberturas**  
**Programa Supervivencia Infantil Zona Bocacosta**  
**Región VI Guatemala, 2001**

**Identificación**

No. Identificación: \_ \_ \_ \_

Departamento \_\_\_\_\_ ( ) Municipio \_\_\_\_\_ ( )

Comunidad \_\_\_\_\_ ( ) Finca \_\_\_\_\_ ( )

**Fecha de la entrevista** \_/\_/\_/  
Día Mes Año

Nombre del entrevistador: \_\_\_\_\_ ( )

Supervisor: \_\_\_\_\_ ( )

**Datos de la madre**

1. Nombre de la madre \_\_\_\_\_
2. Cuantos años cumplidos tiene Ud.? \_\_\_\_\_ años cumplidos.
3. Asistió Ud. alguna vez a la escuela?

1. Si

2. No (pase a la pregunta 5)


4. Cual es el último año de escuela que aprobó? \_\_\_\_\_ años

5. Cual es el idioma que mas habla en su casa?

1. Español

2. Quiché

3. Mam

4. Otro (especifique) \_\_\_\_\_


6. Que tipo de trabajo hace para ganar dinero

1. Nada

2. Artesanía

3. Cosechando/ recogedor de frutas

4. Vendiendo productos agrícolas

5. Vendiendo comidas/productos lácteos

6. Servicios domésticos

7. Dueño de tienda/vendedor de la calle

8. Trabajador asalariado

9. Otros (especifique) \_\_\_\_\_


7. Quien cuida al niño cuando Ud. esta fuera de casa

1. La misma madre
2. Esposo,
3. Hijos mayores
4. Otro pariente (especifique) \_\_\_\_\_
5. Familiares/ amigos
6. Otro (especifique) \_\_\_\_\_

☐  
☐  
☐  
☐  
☐  
☐

### Listado de los niños menores de cinco años

8. Cuantos niños menores de cinco años viven con usted \_\_\_\_\_
9. Cuantos de estos son hijos propios: \_\_\_\_\_ niños
10. Cuales son sus nombres, sexo y edades (si es uno solo, cual es su nombre, sexo y edad)  
(poner en la table los niños propios), empezando por el menor

	Nombre	Sexo	Fecha de nacimiento	Caso índice
1		Masculino Femenino	____ / ____ / ____ Día Mes Año	X
2		1. Masculino 2. Femenino	____ / ____ / ____ Día Mes Año	
3		Masculino Femenino	____ / ____ / ____ Día Mes Año	
4		1. Masculino 2. Femenino	____ / ____ / ____ Día Mes Año	

[Caso índice debe ser el niño de menor edad]

11. Entre sus niños más pequeños (nombre de los dos menores) tuvo otro embarazo?

1. Si
2. No

☐  
☐

### Lactancia materna y nutrición del niño

12. Alguna vez dio de mamar a (nombre del niño menor o caso índice):

1. Si
2. No (pase a la pregunta 14)

☐  
☐

13. Cuanto tiempo después de nacer le dio de mamar (nombre del niño)?

1. Inmediatamente/ dentro de la primera hora de nacido
2. Entre 1 y 8 horas de nacido
3. Después de 8 horas de nacido

☐  
☐  
☐

14. Dígame si (nombre del niño índice) comió y/o bebió ayer, (se refiere al día y la noche)

Alimentos o bebidas		Consumidas en las últimas 24 hrs.
1	Leche materna	
2	Agua pura	
3	Otras leches: maternizada, enlatada, fresca	
4	Jugo de fruta	
5	Otro líquido: té de hierba, sopa/caldo, refresco	
6	Papillas o alimentos sólidos	
7	Alimento hecho de granos: maíz, trigo, avena, papilla confeccionada con cereales, pan, galletas, fideos	
8	Calabaza/zapallo, zanahoria, camoteas amarillos	
9	Otros tubérculos/raíces: papas..	
10	Hojas verdes	
11	Mango, papaya/otra fruta amarilla rica en vitamina A	
12	Otras frutas o vegetales (plátano, manzana, tomate)	
13	Carne de res, de gallina, pescado o huevos	
14	Alimentos hechos con frijoles, lenteja, soya o similar	
15	Queso	
16	Alimentos que contienen grasa	

15. Además de la lactancia cuántas veces comió o bebió líquido [nombre del niño] ayer?  
Incluir tanto las comidas principales como las refacciones [especificar que “ayer” se refiere a día y noche \_\_\_\_\_ Número de veces

### **Salud materna Prenatal**

16. Cuando Ud. estaba embarazada de (nombre del niño) se hizo su control prenatal?

1. Si
2. No (pase a la pregunta 22)

☐  
☐

17. A quien acudió usted? (puede marcar más de una)

1. Médico
2. Obstetriz
3. Enfermera
4. Promotor de Salud

☐  
☐  
☐  
☐

5. Comadrona	<input type="checkbox"/>
6. Otro (especifique)	<input type="checkbox"/>
18. Tiene Ud. Su tarjeta de control de embarazo?	
1. Si -> pida que se la muestre	<input type="checkbox"/>
2. No -> pasa a la pregunta 22	<input type="checkbox"/>
19. Registre el numero de vacunas Toxoide Tetánico que recibió la madre	
1. Una	<input type="checkbox"/>
2. Dos	<input type="checkbox"/>
3. Mas de dos	<input type="checkbox"/>
4. Ninguna	<input type="checkbox"/>
20. Tiene la tarjeta espacios para visitas prenatales?	
1. Si	<input type="checkbox"/>
2. No -> pasa a la pregunta 22	<input type="checkbox"/>
21. Cuantas veces fue la madre a visitas prenatales?	
1. Una	<input type="checkbox"/>
2. Dos	<input type="checkbox"/>
3. Tres o mas	<input type="checkbox"/>
4. Ninguna	<input type="checkbox"/>
22. Conoce alguno de estos signos de peligro durante el embarazo.	
1. Dolor de cabeza	<input type="checkbox"/>
2. Sangrado antes de entrar en dolores de parto	<input type="checkbox"/>
3. Hinchazón de cara o manos	<input type="checkbox"/>
4. Convulsiones	<input type="checkbox"/>
5. Fiebre alt	<input type="checkbox"/>
6. Palidez, respiración dificultosa	<input type="checkbox"/>
7. Dolor o ardor al orinar	<input type="checkbox"/>
8. Otro (Especifique)	<input type="checkbox"/>
9. No sabe (pase a la pregunta 26)	<input type="checkbox"/>
23. Tuvo alguno de esos signos antes del parto?	
1. Si	<input type="checkbox"/>
2. No -> pase a la pregunta 26	<input type="checkbox"/>

24. Pidió consejo o ayuda?

1. Si
2. No -> pase a la pregunta 26


25. A quien acudió usted? (puede marcar mas de una opción)

1. Unidad de salud de la finca
2. Doctor privado
3. Farmacia
4. Promotor
5. Centro o puesto de salud del Minsa
6. Unidad de salud de ONG's
7. COMADRONA
8. OTRO


### Características del Parto

26. Donde se atendió el parto de (nombre del niño)

- Casa Propia  
Otra casa  
Establecimiento de salud.....  
Hospital


27. ¿Quién atendió el parto de (nombre del niño)?

1. Médico
2. Enfermera, obstetríz
3. Auxiliar de enfermería
4. Comadrona tradicional
5. Voluntario de la comunidad
6. Miembro de la familia (especifique el parentesco) \_\_\_\_\_
7. Otro (especifique) \_\_\_\_\_
8. Nadie la ayudo


28. Con que se cortó el (cordón umbilical)

1. Hoja de afeitar nueva
2. Otro instrumento
3. NO SABE


### **Postnatal**

29. Tiene la tarjeta espacios para visitas postnatales (verificar) **APLICARSE SI TIENEN TARJETA**

1. Si
2. No -> pase a la pregunta 31


30. La madre tuvo al menos una visita postparto? **APLICARSE SI TIENEN TARJETA**

1. Si
2. No


31. Conoce usted algún signo de peligro después del parto (menciónelos)

1. Salida de mucha sangre de su parte
2. Mucha calentura
3. Mal olor de su parte
4. Dolor fuerte debajo de su estómago
5. Otro (especifique)
6. No sabe (pasar a la pregunta 35)


**32.** Tuvo alguno de esos signos después del parto?

1. Si
2. No -> pase a la pregunta 35


33. Pidió consejo o ayuda?

1. Si
2. No-> Pase a la 35


34. A quien acudió usted?

1. Unidad de salud de la finca
2. Doctor privado
3. Farmacia
4. Promotor
5. Centro o puesto de salud del Minsa
6. Puesto de salud de Ong o ANACAFE
7. COMADRONA
8. OTRO


### **Inmunizaciones del niño**

35. Tiene una tarjeta de vacunas con el nombre de (nombre del niño)? La puedo ver por favor?



1. Tiene tarjeta, la muestra al entrevistador
2. No esta disponible, perdida -> pase a la pregunta 36
3. Nunca tuvo tarjeta de vacunas de este niño -> pase a la pregunta 36
4. No sabe/ no responde -> pase a la pregunta 36


Copie las fechas en el cuadro, exactamente como están en la tarjeta de vacunas

	Día		Mes		Año	
BCG						
POLIO 0						
POLIO 1						
POLIO 2						
POLIO 3						
DPT 1						
DPT 2						
DPT 3						
SARAMPIÓN						
VITAMINA A						
PENTAVALENTE						
TRES VIRAL						

36. A que edad debe recibir un niño la vacuna contra el sarampión?

1. Número de meses \_\_\_\_\_
2. No sabe


### **Malaria y Dengue:**

37. Que señales le indicarían que su niño puede tener el paludismo? (puede marcar uno o mas o opciones)

1. No sabe
2. Fiebre
3. Escalofríos
4. Dolor de cabeza
5. Convulsiones
6. No puede tomar pecho
7. Otro (especifique)\_\_\_\_\_


38. Que señales le indicarían que su niño puede tener dengue (puede marcar mas de una opciones)

1. Fiebre
2. Dolor de cabeza
3. Dolores musculares
4. Dolor de huesos
5. Dolor en la órbita de los ojos
6. Irritado, llorón
7. NO SABE
8. Otros (especifique) \_\_\_\_\_


39. Tiene mosquiteros aquí en donde vive?

1. Si
2. No -> Pase a la pregunta 42
3. No sabe -> pase a la pregunta 42


40. Quién durmió bajo un mosquitero anoche? (señale uno o mas)

1. El niño
2. La madre
3. Otros (especifique ) \_\_\_\_\_


41. Alguna vez ese mosquitero fue tratado con un líquido para espantar a los mosquitos?  
(Cuando usan mosquitero no usan ningún insecticida)

1. Si.
2. No.
3. No sabe.


### **Enfermedades de los niños y su manejo**

42. Algunas veces los niños necesitan recibir tratamiento. Que molestia le indicaría a Ud. que debe buscar un tratamiento para su niño? (“no sugiera respuestas.”)

1. Luce enfermo, no juega normalmente
2. No come o bebe
3. Letárgico, difícil despertarlo
4. Fiebre alta
5. Respiración rápida o difícil
6. ómitos frecuentes
7. Convulsiones
8. Otro (especifique) .....
9. No sabe.


43. Tuvo (nombre del niño) en las dos últimas semanas alguna de las molestias que voy a mencionarle

Síntoma o signo	Diarrrea o sangre en las heces	Tos, respiración difícil, o rápida	Fiebre Malaria/ <b>dengue, o</b> convulsiones	Otro: describa.....
A. Lo tuvo?	1. Si 2. No	1. Si 2. No	1. Si 2. No	1. Si 2. No otro
B. Cuando su niño se enfermó buscó consejo o ayuda?	1. Si 2. No	1. Si 2. No	1. Si 2. No	1. Si 2. No
C. A quien acudió <u>primero para buscar</u> consejo o ayuda?	1. Unidad BS 2. Promotor 3. Centro o puesto 4. Proveedor privado 5. Hospital 6. Farmacia 7. Curandero 8. Familiar/amigo 9. Otro.....	1. Unidad BS 2. Promotor 3. Centro o puesto 4. Proveedor privado 5. Hospital 6. Farmacia 7. Curandero 8. Familiar/amigo 9. Otro.....	1. Unidad BS 2. Promotor 3. Centro o puesto 4. Proveedor privado 5. Hospital 6. Farmacia 7. Curandero 8. Familiar/amigo 9. Otro.....	1. Unidad BS 2. Promotor 3. Centro o puesto 4. Proveedor privado 5. Hospital 6. Farmacia 7. Curandero 8. Familiar/amigo 9. Otro.....
D. Después de esa ayuda a quién más buscó?	1. Unidad BS 2. Promotor 3. Centro o puesto 4. Proveedor privado 5. Hospital 6. Farmacia 7. Curandero 8. Familiar/amigo 9. Otro.....	1. Unidad BS 2. Promotor 3. Centro o puesto 4. Proveedor privado 5. Hospital 6. Farmacia 7. Curandero 8. Familiar/amigo 9. Otro.....	1. Unidad BS 2. Promotor 3. Centro o puesto 4. Proveedor privado 5. Hospital 6. Farmacia 7. Curandero 8. Familiar/amigo 9. Otro.....	1. Unidad BS 2. Promotor 3. Centro o puesto 4. Proveedor privado 5. Hospital 6. Farmacia 7. Curandero 8. Familiar/amigo 9. Otro.....
E. Mientras estuvo enfermo, dio al niño menos, igual o mas leche materna?	1. Menos 2. Igual 3. Mas 4. ya no lactaba	1. Menos 2. Igual 3. Mas 4. ya no lactaba	1. Menos 2. Igual 3. Mas 4. ya no lactaba	1. Menos 2. Igual 3. Mas 4. ya no lactaba
F. Mientras estuvo enfermo, dio al niño menos, igual o mas líquidos?	1. Menos 2. Igual 3. Mas	1. Menos 2. Igual 3. Mas	1. Menos 2. Igual 3. Mas	1. Menos 2. Igual 3. Mas
G. Mientras estuvo enfermo, dio al niño menos, igual o mas comida?	1. Menos 2. Igual 3. Mas	1. Menos 2. Igual 3. Mas	1. Menos 2. Igual 3. Mas	1. Menos 2. Igual 3. Mas
H. Que tratamientos le dio? Puede marcar una o más. Si responde medicina, pida se la muestren y anote	A. Ninguno B. Sobre de rehidratación oral C. Liquido casero D. medicinas..... E. Otro...	A. Ninguno B. Liquido C. Medicamentos D. Alimentos ..... E. Otros...	A. Ninguno B. Liquido C. Medicamentos D. Alimentos..... E. Otros...	A. Ninguno B. Liquidos C. Medicamentos D. Alimentos..... E. Otros...

44. En el ultimo año llevó a su niño al menos una vez a la unidad básica de la finca (esta pregunta aplica solo para áreas de intervención actual: fincas y comunidades aledañas)

1. Si  
2. No

☐  
☐

45. Lo llevaría nuevamente

1. Si (pase a la pregunta 47)  
2. No

☐  
☐

46. Porqué no lo llevaría

1. Porque está cerrada

☐

2. Porque no hay medicamentos
3. No atienden todo el día
4. Otros (especifique)


### Higiene personal

47. Cuando se lava Ud. Las manos?

1. Nunca
2. Antes de preparar alimentos
3. Antes de alimentar al niño
4. Después de defecar
5. Después de manipular heces del niño
6. Otro (especifique) \_\_\_\_\_


48. Dónde defeca usualmente (nombre del niño) (reemplazar por localismo de defecar)

1. Letrina o sanitario
2. En una esquina o espacio vacío en la propiedad de la familia
3. En campo abierto
4. Directamente en el río, canal o manantial
5. Otro (especifique) \_\_\_\_\_


49. Tiene su familia una letrina o servicio sanitario para uso diario?

1. Si
2. No


### Mensajes radiales

50. Recuerda haber escuchado en la radio algún mensaje sobre salud del niño y de la madre en este último mes?

1. Si
2. No (pase a antropometría pregunta 52)


51. Recuerda cual o cuales eran los temas de los que se hablaba (especifique) en esos mensajes radiales?

1. No recuerda
2. Salud del niño (especifique) \_\_\_\_\_
3. Salud materna (especifique) \_\_\_\_\_
4. Salud reproductiva (especifique) \_\_\_\_\_
5. Salud familiar (especifique) \_\_\_\_\_


### Antropometría

52. Pese, mida la longitud (acostado) del niño. Registre el peso del niño en libras. Registre la ctualme al mm mas próximo.

Peso del niño